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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Marvin Lewis JR.

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EXAMINER

STEELE, JENNIFER A

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/010,468	Applicant(s) LEWIS, MARVIN	
	Examiner JENNIFER STEELE	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 May 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 9-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claim 1 and 16 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claims include the limitation that fabric is "substantially" flat in cross-section and of "substantially" uniform thickness in cross-section. The term "substantially" in claim 1 is a relative term which renders the claim indefinite. The term "substantially" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The specification teaches in paragraph [0016] the tape 10 has sufficient natural flatness, however does not describe the limitation of being flat or of uniform thickness further. The claims as recited are indefinite and do not distinguish the tape such that one of ordinary skill in the art could make tape.

2. Claim 9 and 16 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to

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one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claims include the limitation that fabric is "substantially uniform denier distribution throughout" the mattress closing tape. The term "substantially" in claim 1 is a relative term which renders the claim indefinite. The term "substantially" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The term "uniform denier distribution" is not defined in the specification and the size and denier of the yarns are not described or defined such that one of ordinary skill in the art could make or reproduce the invention.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

1. Claim 1-7 and 9-16 rejected under 35 U.S.C. 103(a) as being unpatentable over Siegel et al (US 5,472,766) and Gajjar (US 4,638,648) and Frenzel (US 4893482) and Spencer, Knitting Technology. The previous Office Action of 2/20/2008 is maintained and present below. As Siegal teaches a mattress closing tape for secure the edges of a mattress, Siegal use for securing the edge of a mattress in combination with a mattress is equated with Applicant's use for closely conforming to an edge bead of a mattress. Siegal teaches that prior art mattress tapes being insufficient being limited to designs of thicknesses, rigidity or shape holding ability and that all woven tapes were of uniform thickness which limited shape holding ability. As Siegal teaches a mattress closing tape of different thicknesses to improve upon prior art of uniform thickness and rigidity, Siegal presents a finding that one of ordinary skill in the art could of optimized a knitted tape to achieve the desired properties for securing the edge of a mattress.

Siegal teaches a mattress tape for securing the edge of the mattress (ABST). Siegal teaches a warp knit mattress tape that allows for the construction of a tape that has desired rigidity and density of the fabric. Siegal teaches through warp knitting it is possible to incorporate a large variety of different threads at different sections of the mattress tape (col. 2, lines 6-13). Siegal teaches lengthwise and widthwise yarns that span the entire width of the tape. Siegal teaches a tape with three different sections, a center section of greater rigidity and two side sections that are more flexible (col. 2, lines 14-24). Siegal also teaches different embodiments with different inlay yarns that span different sections of the tape. Siegal teaches through warp knitting enables the manufacturer to form designs on the mattress tape and make a mattress tape more

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aesthetically pleasing with patterns (col. 8, lines 48-54). Siegel teaches four inlaid yarns that are equated with filling yarns and sets of warp yarns called chain loops $W_1 - W_{16}$. The structure of Siegel provides for a technical front and a technical back that have a different pattern. Siegel differs from the current application and does not specifically teach a base layer and a patterned layer.

Gajjar teaches a multi-layered warp knit fabric using a four bar stitch (four guide bars) and four filling yarns that are patterned to create two layers by placing each of the four yarns in patterns on one side or the other of the fabric. Gajjar teaches multiple filling threads where the filling threads are patterned to allow cotton blend threads (22) to the outer layer and polyester and nylon yarns (20,24) to the inner layer. Gajjar teaches a layered fabric where the technical back is not the same as the technical front. Gajjar's invention is produced on a knitting machine and the layers are produced at the same time.

Frenzel teaches a warp knit fabric strip of single or multiple layers with multiple filling threads where the filling weft threads zig-zag or traverse and extend from one edge of the fabric to the other (col. 5 lines 44-55). Frenzel teaches that the weft threads are arranged in an oblique fashion to form a pattern.

Spencer, Knitting Technology teaches that crochet knitting machines of the raschel type are capable of producing layered fabrics that are produced at the same time on the machine using more than 2 filling yarns (pgs 301). The machines are capable of producing a wide variety of patterns (pg. 310) that would include diamond pattern.

Siegel teaches a narrow width crochet warp knit fabric for use as a mattress tape but does not teach a layered fabric or a diamond pattern. Gajjar's teaches a double layer fabric with multiple filling yarns produced at the same time on a warp knitting machine. Frenzel's teaches a layered, patterned warp knit fabric strip of multiple filling yarns and teaches traversing, zig-zagging, the weft yarns across the strip. Further, Spencer teaches that crochet type machines are capable of utilizing multiple filling yarns to produce two layer fabrics at the same time that have patterns. It would have been obvious to one of ordinary skill in the art at the time the invention was made to produce a mattress closing tape motivated to produce a narrow width fabric strip on a crochet warp knitting machine that can produce double layers, use multiple filling yarns and a decorative pattern. It would have been obvious to one of ordinary skill in the art to produce a multilayer narrow-width fabric with multiple fillings, patterns and layers on a crochet warp knitting machine motivated to produce a mattress tape that is strong, decorative and can be produced on a machine.

Terminal Disclaimer

2. *The terminal disclaimer filed on 1/6/2006 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of PN 6,698,251 has been reviewed and is accepted. The terminal disclaimer has been recorded.*

Response to Arguments

3. Applicants amended claims to remove the limitation of substantially non-channeled and spanning connections and therefore the previous 35 USC 112 1st paragraph rejection has been withdrawn. However as Applicant has amended the claims to add new limitations of "substantially" flat in cross-section and of "substantially" uniform thickness in cross-section and "substantially uniform denier distribution throughout" new 35 USC 112 2nd paragraph rejections are presented in this office action.

4. Applicant's arguments filed 5/20/2008 have been fully considered but they are not persuasive. Applicant argues that Siegel teaches against using woven mattress tapes of uniform thicknesses and Applicant points out that uniform versus non-uniform thickness is not merely a design choice and that Siegel tape of non-uniform thickness creates an unsightly and uncomfortable "nub" over the seam as shown in Fig 2. While the drawing shows the edge construction, this construction is equated with Applicant's construction wherein the tape is adapted to closely conform to an edge bead of a mattress. If the edge bead of Applicant's mattress is different from the edge of Siegel's mattress, the disclosure fails to limit or further describe this difference. As Siegel teaches prior art mattress tape of uniform thickness and teaches this uniform thickness is undesirable, Siegel nevertheless presents a finding that one of ordinary skill in the art could of employed a uniform thickness mattress tape to secure the edge of a mattress. It would of been obvious to one of ordinary skill in the art to employ a mattress tape of uniform thickness motivated to achieve the desired properties for the tape and mattress tape combination.

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5. Applicant's arguments with respect to claims 9 and 10-15 are not persuasive.

Applicants argue that Siegel provides structural integrity to the seam whereas the present invention finishes the seam. As Applicant has not disclosed a specific denier for the yarns in the claims and does not provide support for one size denier yarn versus another. Applicant's specification states in paragraph [0017], "Likewise, those persons skilled in the relevant art and industry will recognize and understand that numerous variations and modifications may be made in the tape of the present invention without departing from the scope and the substance of the invention. For example, the use of additional fillings, variations in the sizes and types of the filling and warp yarns, and variations in the stitch patterns executed by the filling bars 1 and 2 will enable the selective engineering of the physical characteristics of the fabric." Applicant is not limiting the sizes of the yarns in the claims nor the specification so as to present a less stiff or more flexible tape than the teachings of Siegel and therefore it would have been obvious to optimize the yarns to achieve the desired structure for use in combination with a mattress edge seam. In the absence or evidence of unexpected results, it would have been obvious to optimize the size of the yarns and produce a tape with a uniform thickness in combination with the features of warp knit patterns of Gajjar and diagonal pattern of Frenzel and the results of the combination would have been predictable.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JENNIFER STEELE whose telephone number is (571)272-7115. The examiner can normally be reached on Office Hours Mon-Fri 8AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on (571) 272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. S./
Examiner, Art Unit 1794

/Elizabeth M. Cole/
Primary Examiner, Art Unit 1794

8/5/2008